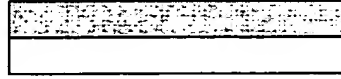
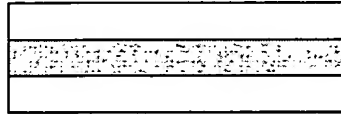


(A)



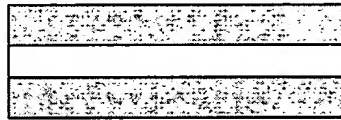
Magnetostrictive Layer  
Piezoelectric Layer

(B)



Piezoelectric Layer  
Magnetostrictive Layer  
Piezoelectric layer

(C)



Magnetostrictive Layer  
Piezoelectric Layer  
Magnetostrictive Layer

Figure 1

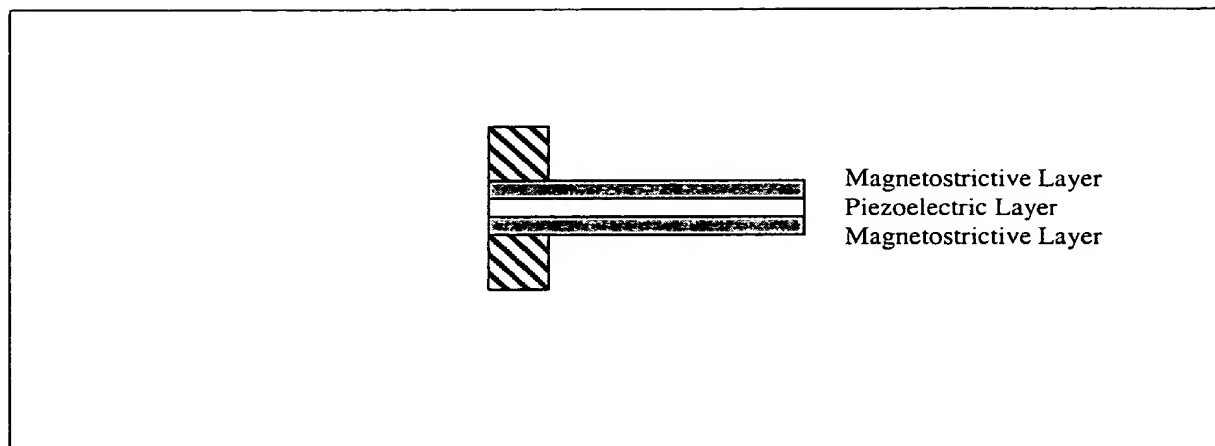


Figure 2

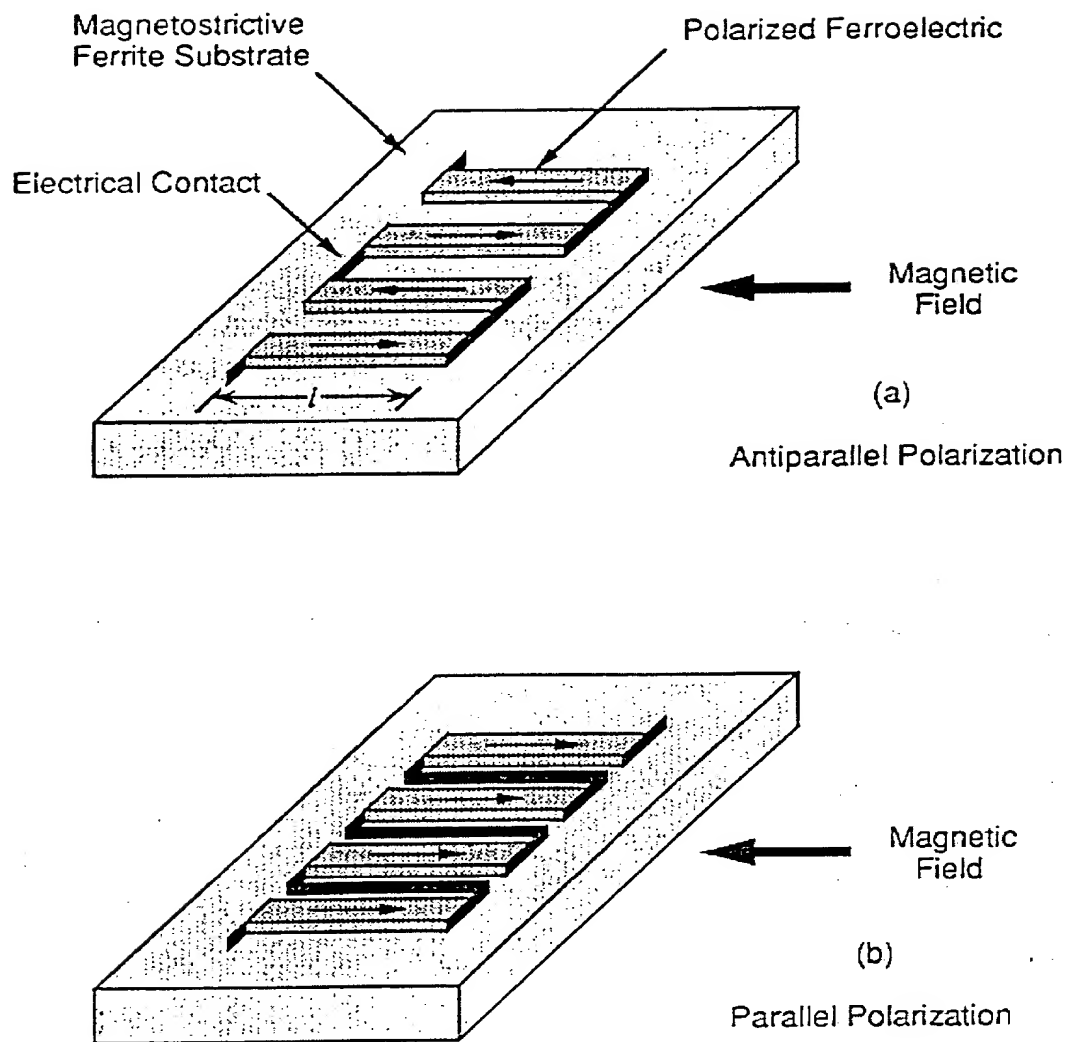


Figure 3



## Passive Piezoelectric Read Head

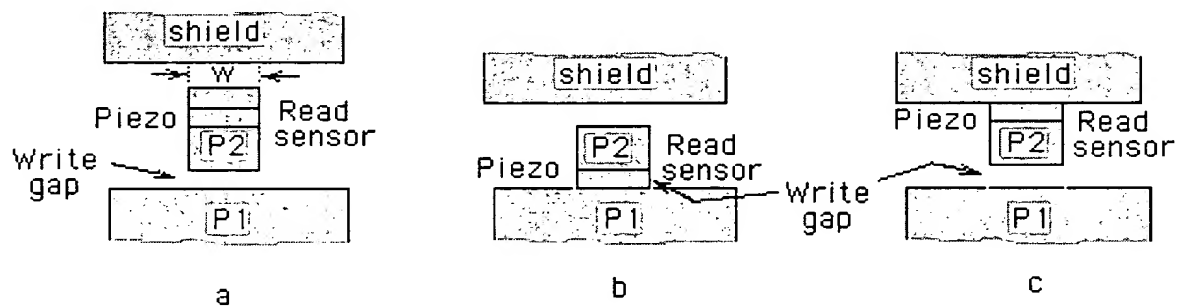
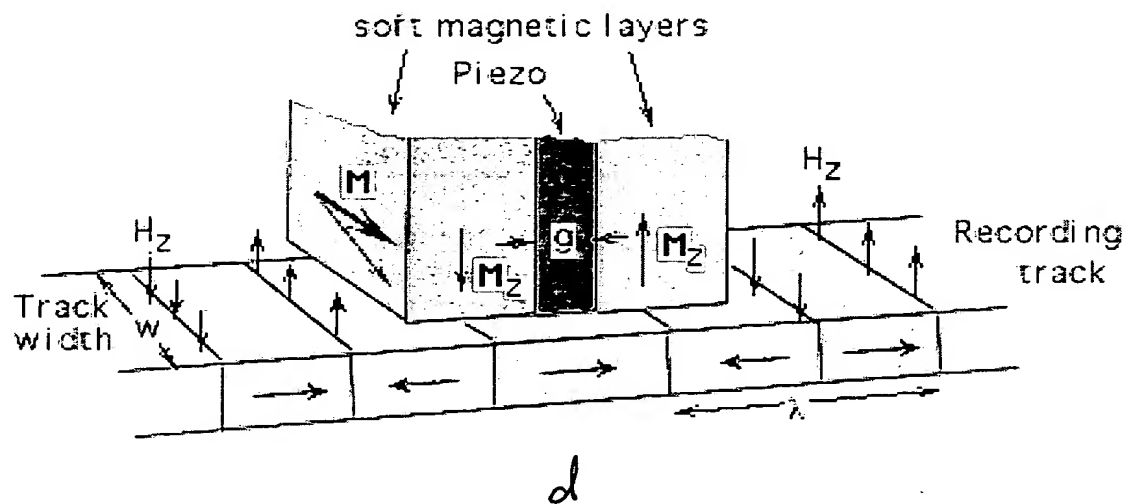


Figure 5

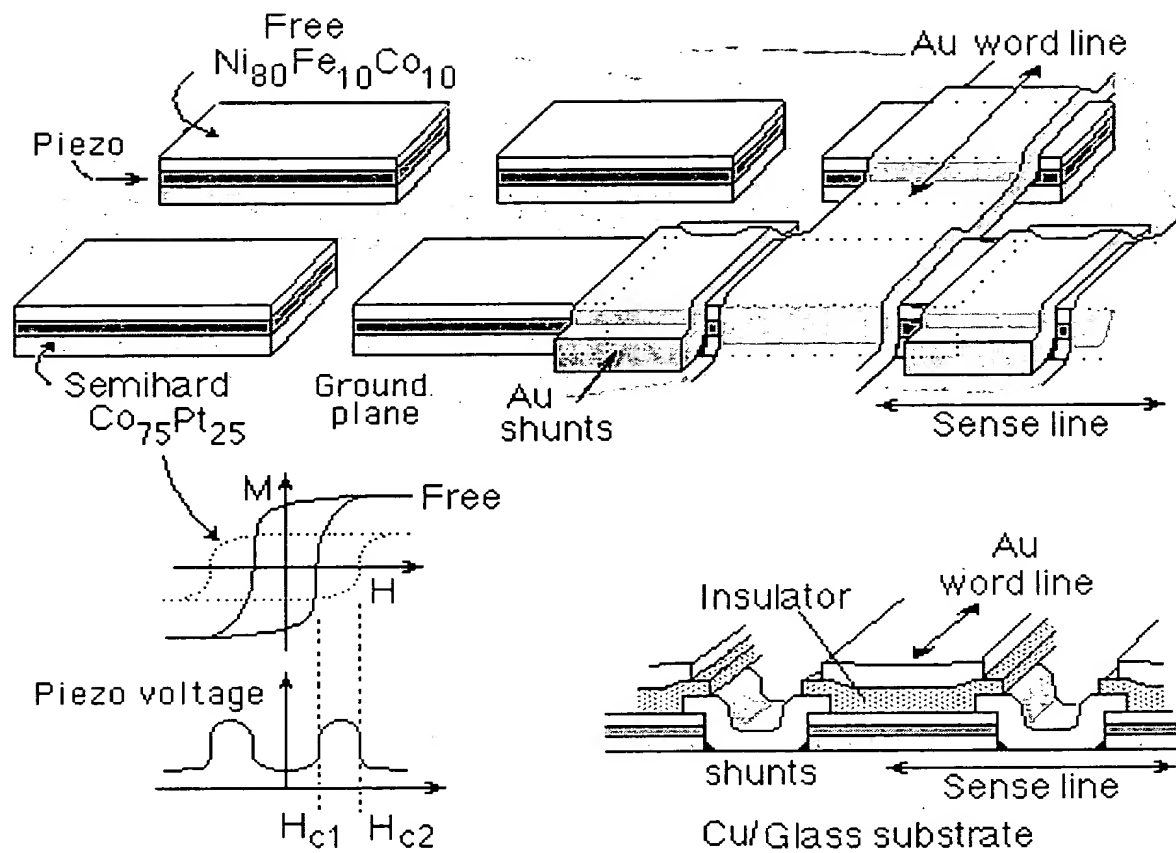


Figure 6

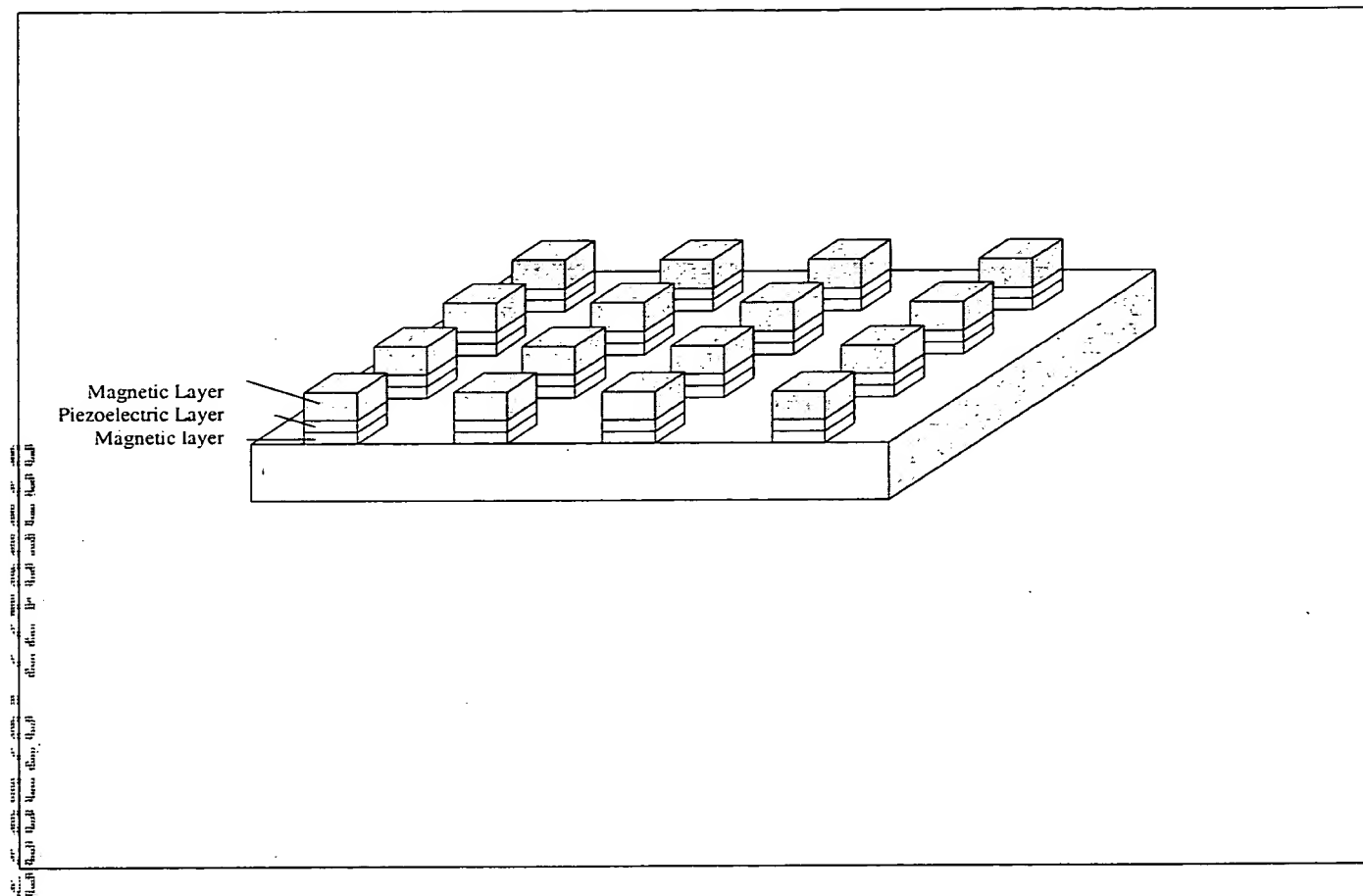


Figure 7

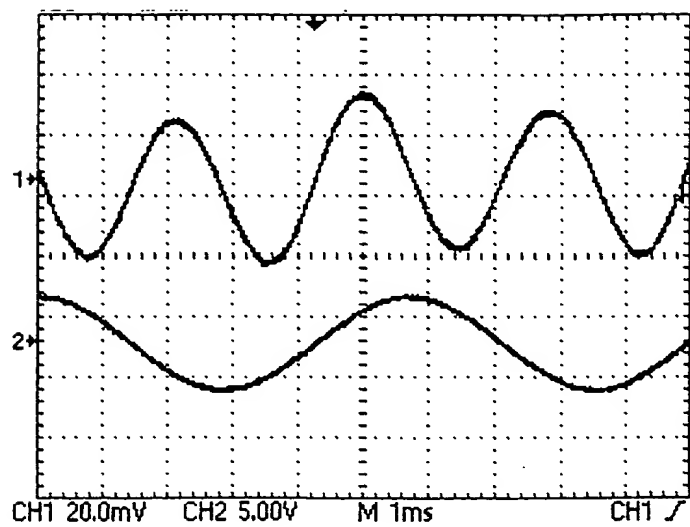


Figure 8



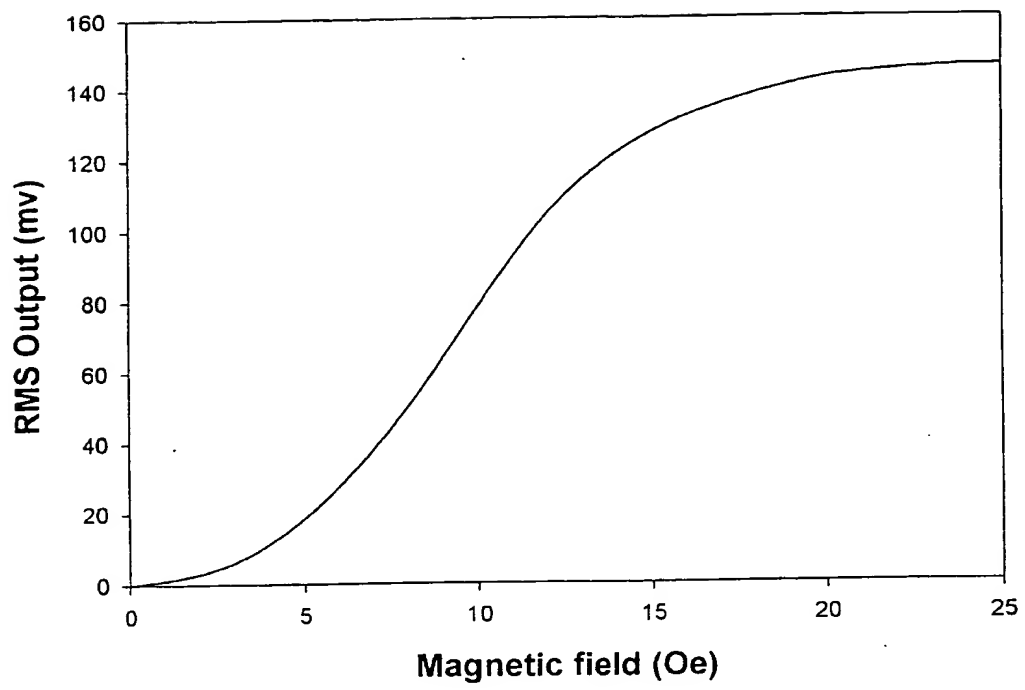


Figure 9

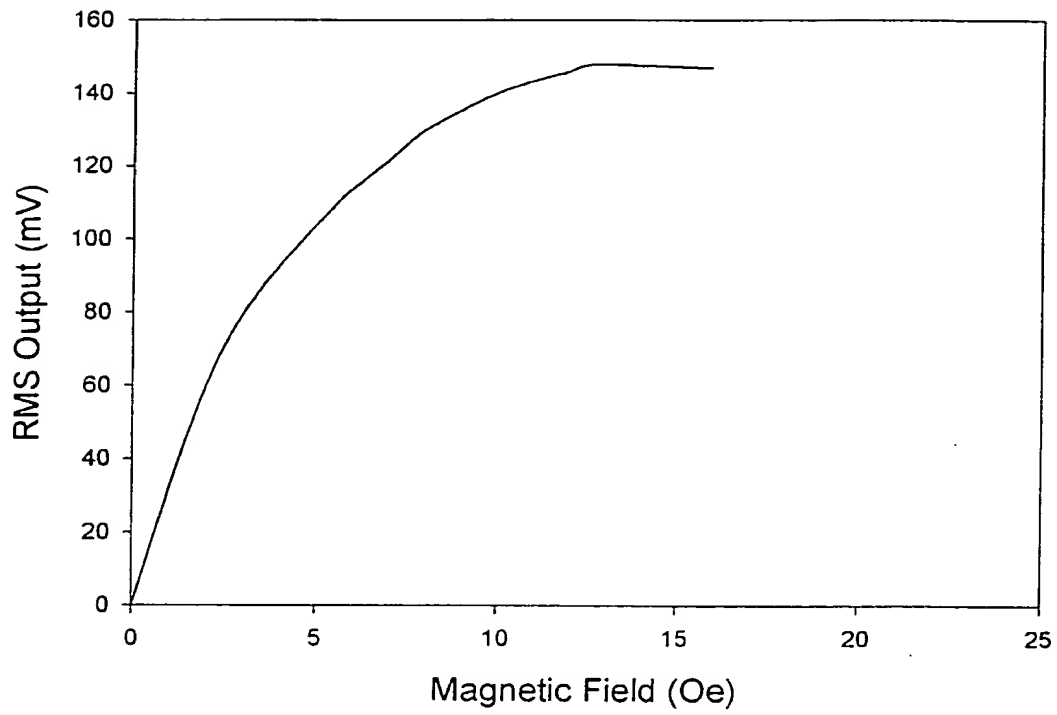


Figure 10

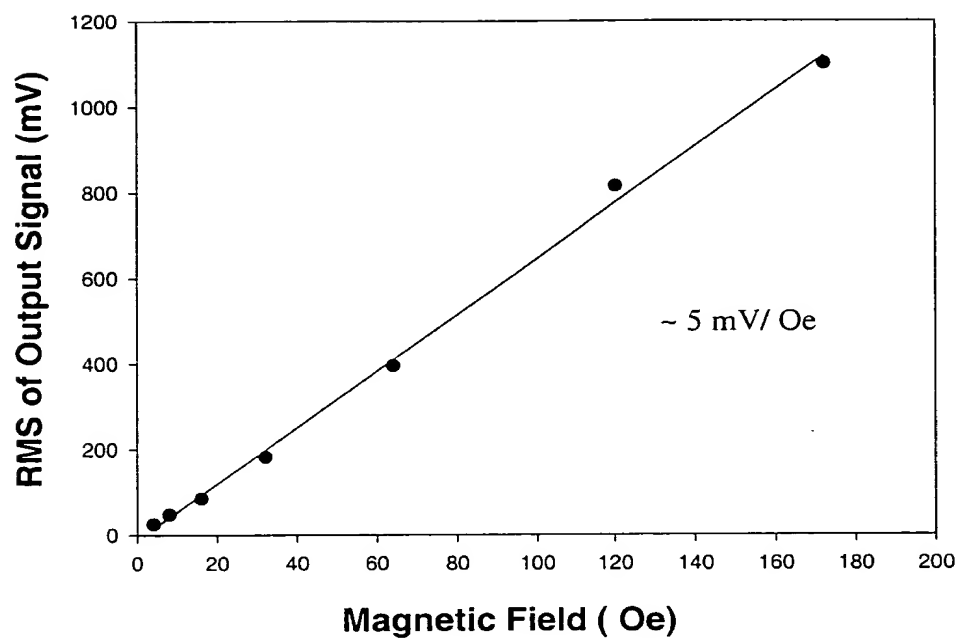


Figure 11

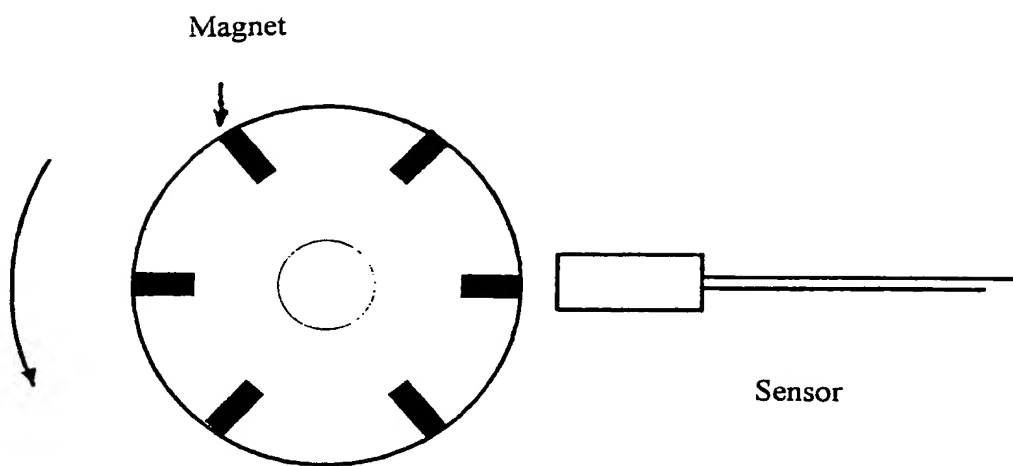


Figure 12

that the disk has the Hall effect sensor and the magnet

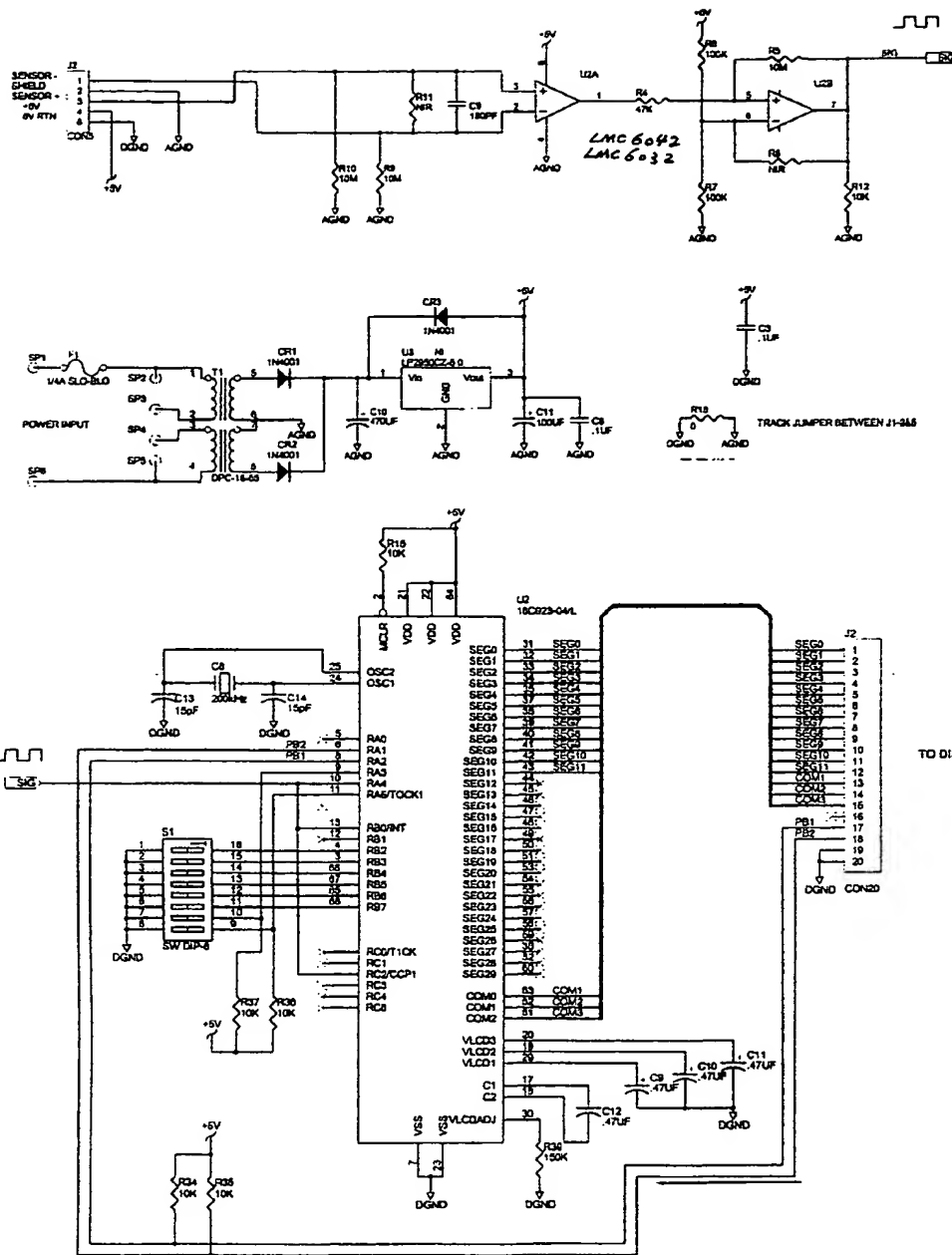


Figure 13

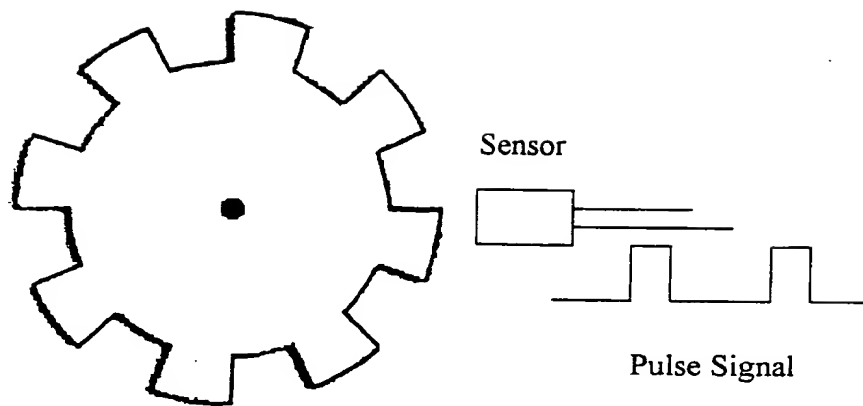


Figure 14

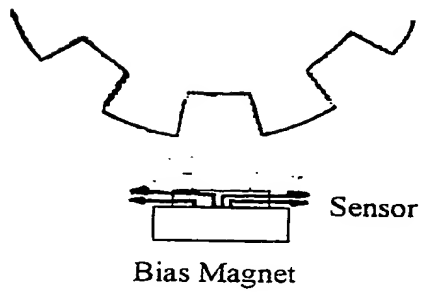
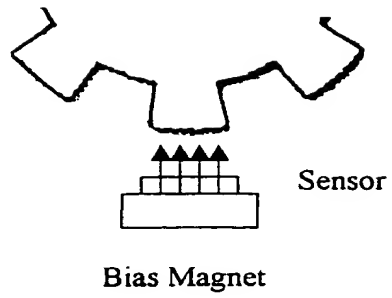


Figure 15

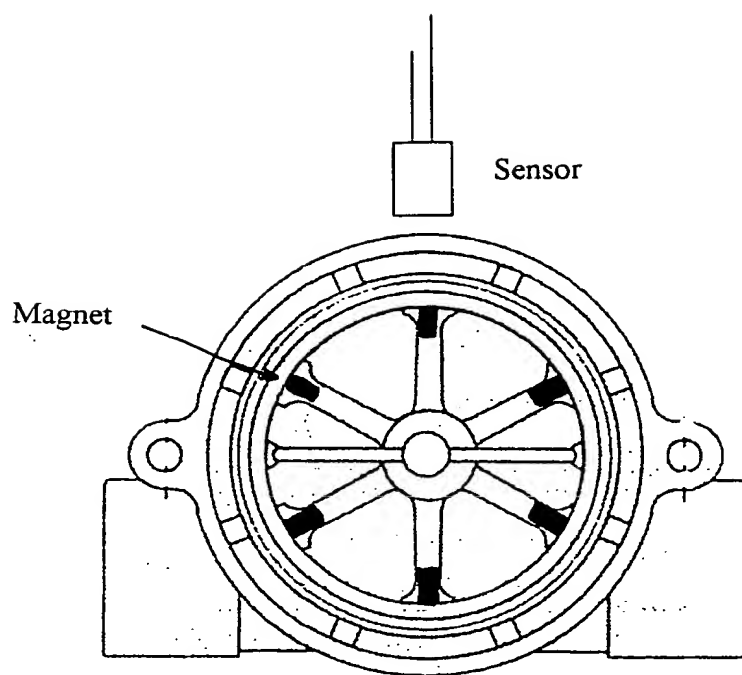


Figure 16



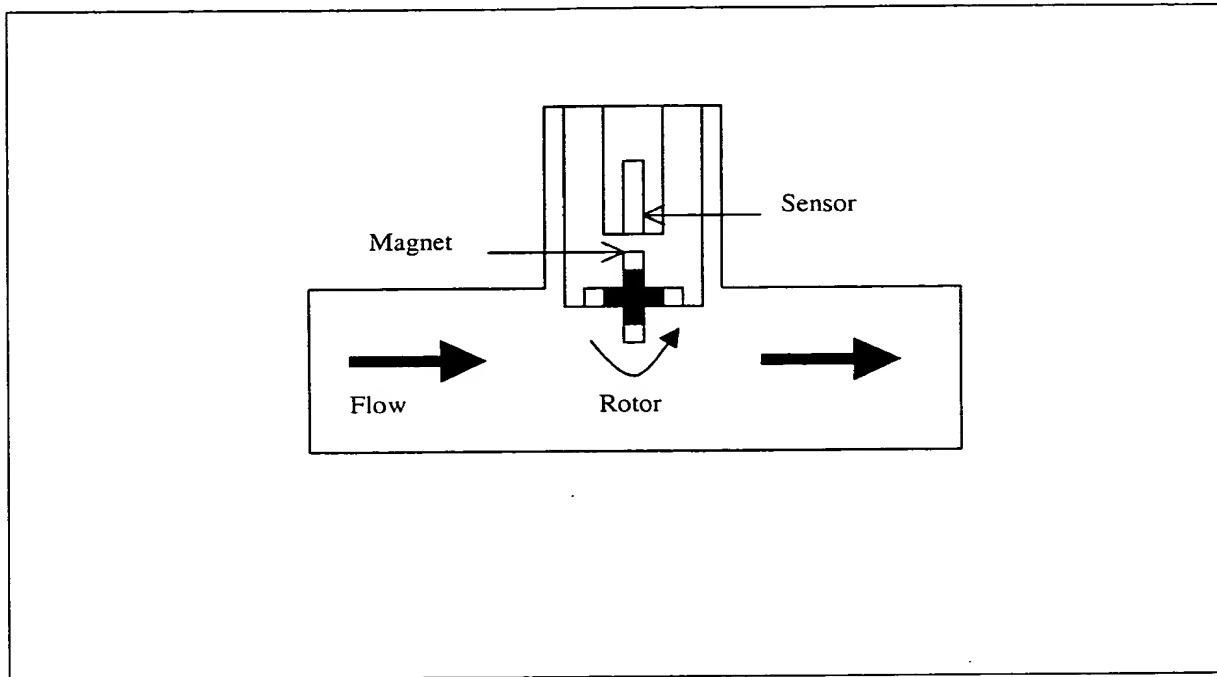


Figure 17

Calbration of Rotor Speed to Flow Rate

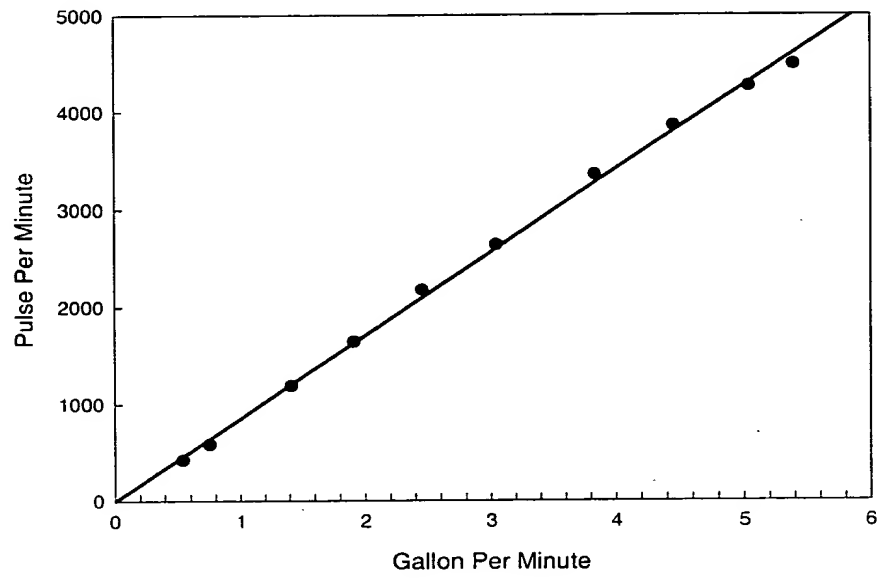


Figure 18

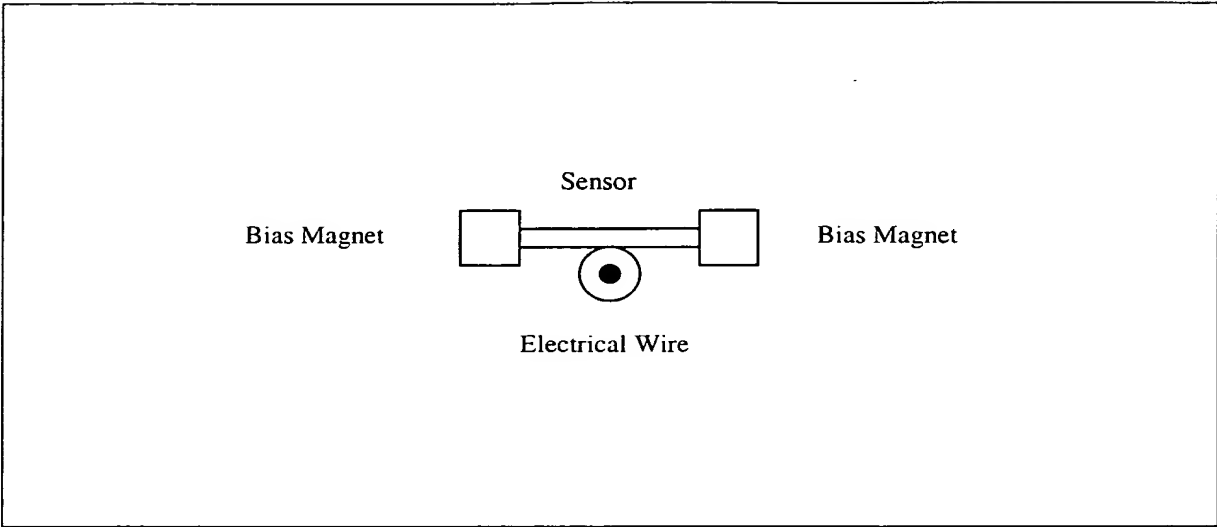


Figure 19

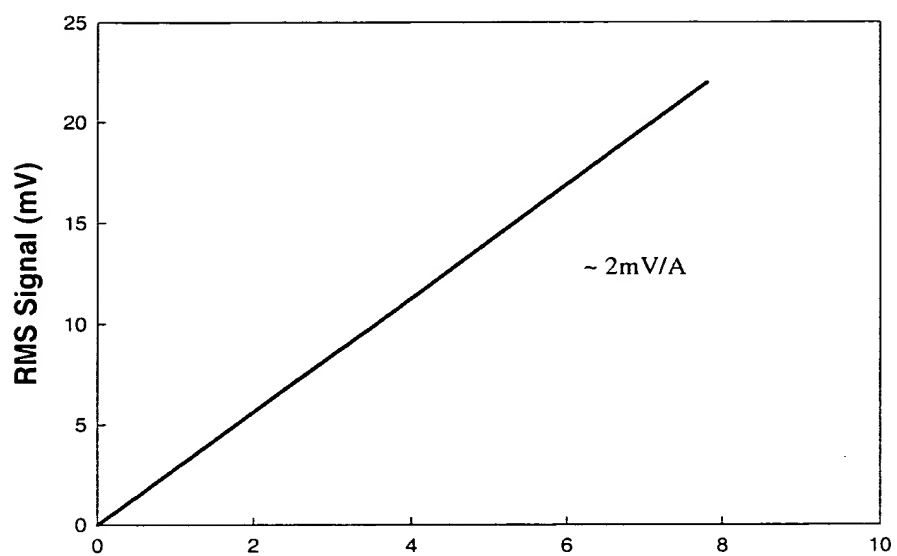


Figure 20